

AMENDMENTS TO THE CLAIMS

Listing of Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (currently amended) A cold cathode type flat panel display comprising:
 - a first substrate including thin-film type electron sources arranged in arrays, each of said thin-film type electron sources including a lower electrode, an upper electrode and an electron acceleration layer retained between said lower electrode and said upper electrode, each of said thin-film type electron sources emitting electrons from said upper electrode in response to a voltage applied between said lower electrode and said upper electrode; and
 - a second substrate including a fluorescent screen in which a plurality of phosphors to be excited by said electrons emitted from said first substrate are arrayed;

~~said cold cathode type flat panel display being characterized in that~~ wherein each of said arrays of said thin-film type electron sources includes an anodic oxide film ~~a first interlayer insulation layer~~ and an upper electrode feeder wiring serving as a power feed line to said upper electrode~~[[;]],~~ and a ~~second interlayer insulation layer~~ non-anodic insulation film formed of one of a non-anodic oxide insulation film and a non-anodic nitride insulation film, is provided between said ~~first interlayer insulation layer~~ anodic oxide film and said upper electrode feeder wiring.
2. (currently amended) A cold cathode type flat panel display according to Claim 1, ~~characterized in that~~ wherein:

said lower electrode is made of aluminum or an aluminum alloy;

said electron acceleration layer and said anodic oxide film ~~first interlayer insulation layer are anodic oxide films are made~~ of said aluminum or aluminum alloy forming said lower electrode; and

said ~~second interlayer insulation layer~~ non-anodic insulation film is made of an insulation film material which can be etched selectively with respect to said lower electrode and said anodic oxide films ~~film of said aluminum or aluminum alloy forming said lower electrode.~~

3. (currently amended) A cold cathode type flat panel display according to Claim 2, ~~characterized in that~~ wherein:

a terminal portion of said ~~second interlayer insulation layer~~ non-anodic insulation film surrounding an electron acceleration region has a normal dip shape.

4. (currently amended) A cold cathode type flat panel display according to Claim 2, ~~characterized in that~~ wherein:

said ~~second interlayer insulation layer~~ non-anodic insulation film has a structure of a plurality of layers; and

said ~~second interlayer insulation layer~~ non-anodic insulation film has a normal dip shape in a terminal portion thereof surrounding an electron emission region, said normal dip shape being formed using a difference in etching rate among said layers.

5. (currently amended) A cold cathode type flat panel display comprising a substrate and a fluorescent screen, said substrate including thin-film type electron sources arranged in arrays, each of said thin-film type electron sources including a

lower electrode, an upper electrode and an electron acceleration layer retained between said lower electrode and said upper electrode, each of said thin-film type electron sources emitting electrons from said upper electrode in response to a voltage applied between said lower electrode and said upper electrode;

~~—said cold cathode type flat panel display being characterized in that:~~

wherein each of said arrays of said thin-film type electron sources includes a ~~first interlayer insulation layer~~an anodic oxide film, an upper electrode feeder wiring serving as a power feed line to said upper electrode, and a ~~second interlayer insulation layer~~non-anodic insulation film having an opening and put between said ~~first interlayer insulation layer~~anodic oxide film and said upper electrode feeder wiring; and

wherein a region for emitting electrons is defined by a region of said opening of said ~~second interlayer insulation layer~~non-anodic insulation film.

6. (currently amended) A cold cathode type flat panel display according to Claim 5, ~~characterized in that~~wherein:

said lower electrode is made of aluminum or an aluminum alloy;

said electron acceleration layer and said ~~first interlayer insulation layer~~anodic oxide film are made anodic oxide films of said aluminum or aluminum alloy forming said lower electrode; and

said ~~second interlayer insulation layer~~non-anodic insulation film is made of an insulation film material which can be etched selectively with respect to said lower electrode and said anodic oxide ~~films~~film.

7. (currently amended) A cold cathode type flat panel display according to Claim 5, ~~characterized in that~~wherein:

a terminal portion of said ~~second interlayer insulation layer~~ non-anodic insulation film surrounding said electron emission region has a normal dip shape.

8. (currently amended) A cold cathode type flat panel display according to Claim 5, ~~characterized in that~~wherein:

said ~~second interlayer insulation layer~~ non-anodic insulation film has a structure of a plurality of layers; and

said ~~second interlayer insulation layer~~ non-anodic insulation film has a normal dip shape in a terminal portion thereof surrounding said electron emission region, said normal dip shape being formed using a difference in etching rate among said layers.

9. (currently amended) A cold cathode type flat panel display according to Claim 1, ~~characterized in that~~wherein:

said ~~second interlayer insulation layer~~ non-anodic insulation film has a structure of a plurality of layers; and

said ~~second interlayer insulation layer~~ non-anodic insulation film has a normal dip shape in a terminal portion thereof surrounding said electron emission region, said normal dip shape being formed using a difference in etching rate among said layer.

10. (New) A cold cathode type flat panel display according to Claim 1, wherein said non-anodic insulation film is said non-anodic oxide film.

11. (New) A cold cathode type flat panel display according to Claim 1, wherein said non-anodic insulation film is said non-anodic nitride film.

12. (New) A cold cathode type flat panel display according to Claim 1, wherein said non-anodic insulation film enables covering of defects unevenly distributed in a boundary between an electron acceleration layer and said anodic oxide film and enables suppression of a time-dependent insulation breakdown.

13. (new) A cold cathode type flat panel display according to Claim 5, wherein said non-anodic insulation film is a non-anodic oxide film.

14. (new) A cold cathode type flat panel display according to Claim 5, wherein said non-anodic insulation film is a non-anodic nitride film.

15. (new) A cold cathode type flat panel display according to Claim 5, wherein said non-anodic insulation film enables covering of defects unevenly distributed in a boundary between an electron acceleration layer and said anodic oxide film and enables suppression of a time-dependent insulation breakdown.